

AMENDMENTS IN THE CLAIMS

Please cancel claims 1 through 33 without prejudice or disclaimer as to their subject matter, amend claims 34 through 38 and newly add claims 39 through 46 as follows:

Claims 1-33. (Canceled)

1 34.(Currently Amended) A method of manufacturing a bubble-jet type ink jet printhead,
2 comprising ~~the steps of~~:
3 depositing, patterning, and etching a resistive material on a silicon substrate;
4 depositing, patterning, and etching an individual signal line over a portion of said resistive
5 material;
6 depositing a first electrically insulating layer over said silicon substrate;
7 etching a hole in said first electrically insulating layer exposing a portion of said resistive
8 material absent of said individual signal line;
9 depositing, patterning, and etching a common signal line, said common signal line being in
10 electrical contact with said resistive material via said hole in said first electrically insulating layer;
11 depositing a second electrically insulating layer over said silicon substrate;
12 etching through a portion of said first and second insulating layers to expose a portion of said
13 individual signal line in a region absent of said resistive material;
14 depositing, patterning, and etching a film to form a plurality of ~~chamber~~ barrier walls, a first
15 of said plurality of ~~chamber~~ barrier walls being on top of a substantial portion of said individual
16 signal line, and a second of said plurality of ~~chamber~~ barrier walls being parallel to said first ~~chamber~~

17 ~~wall of said plurality of barrier walls~~, said second ~~chamber wall~~ of said plurality of barrier walls
18 being on an opposite side of said hole in said first insulating layer than said first ~~chamber walls of~~
19 said plurality of barrier walls; and

20 attaching a nozzle plate to a top portion of said plurality of ~~chamber~~ barrier walls, said nozzle
21 plate being perforated by a plurality of nozzle holes, one of said plurality of nozzle holes being
22 directly above said hole in said first insulating layer.

1 35. (Currently Amended) The method of claim 34, ~~wherein~~ said resistive material is patterned
2 to be “P” shaped.

1 36.(Currently Amended) The method of claim 35, ~~wherein~~ said individual line covers a
2 straight portion of said “P” shaped resistive layer.

1 37. (Currently Amended) The method of claim 36, ~~wherein~~ said hole in said first insulating
2 layer is located over a center of a curved portion of said “P” shaped resistive layer.

1 38. (Currently Amended) The method of claim 37, ~~wherein~~ one unit heater is located between
2 one side of said center of said curved portion of said resistive layer and said straight portion of said
3 resistive layer and another unit heater is located between another side of said center of said curved
4 portion of said resistive layer and said straight portion.

1 39. (New) A method of manufacturing a bubble-jet type ink jet printhead, comprising:

2 forming a plurality of resistive heater elements comprised of patterned resistive material on
3 a substrate;

4 forming a patterned electrode layer on the substrate, the patterned electrode layer being
5 electrically connected to the resistive heater elements;

6 forming barrier walls over the substrate, the barrier walls separating pairs of patterned
7 resistive heater elements from each other; and

8 attaching a nozzle plate to a top of the plurality of barrier walls, the nozzle plate being
9 perforated by a plurality of nozzle holes, each nozzle hole being disposed above a portion of the
10 substrate between a pair of patterned resistive heater elements, each nozzle hole also being disposed
11 between a pair of adjacent barrier walls.

1 40. (New) The method of claim 39, further comprising forming an insulating layer over the
2 substrate, over the resistive heater elements and over the patterned electrode layer, the plurality of
3 barrier walls being formed on the insulating layer.

1 41. (New) The method of claim 39, the resistive heater elements being formed in pairs,
2 wherein barrier walls serve to separate one pair of resistive heating elements from another adjacent
3 pair of resistive heater elements.

1 42. (New) The method of claim 39, said electrode layer is deposited so that each pair of
2 resistive heaters are electrically connected in series.

1 43. (New) A method of manufacturing a bubble-jet type ink jet printhead, comprising:
2 forming a plurality of resistive heater elements comprised of patterned resistive material on
3 a substrate;
4 forming a patterned first electrode layer on the substrate, the patterned first electrode layer
5 being electrically connected to the resistive heater elements;
6 forming a first insulating layer over the substrate, the plurality of resistive heater elements
7 and the patterned first electrode layer;
8 etching a hole perforating the first insulating layer to expose a portion of a resistive heater
9 element;
10 forming a second electrode layer over the first insulating layer, said second electrode layer
11 being formed in said hole to form electrical contact to said resistive heater element;
12 forming barrier walls over the substrate, the barrier walls separating pairs of patterned
13 resistive heater elements from each other; and
14 attaching a nozzle plate to a top of the plurality of barrier walls, the nozzle plate being
15 perforated by a plurality of nozzle holes.

1 44. (New) The method of claim 43, further comprising forming a second insulating layer
2 over the first insulating layer and over the second electrode layer, wherein the barrier walls are
3 formed on the second insulating layer.

1 45. (New) The method of claim 43, said hole being formed over a portion of a resistive
2 heater that is not covered by the first electrode layer.

1 46. (New) The method of claim 44, further comprising etching back a portion of the second
2 insulating layer to expose a portion of the first electrode layer.